Qualys Cloud Platform

Looking Under the Hood: What Makes Our
Cloud Platform so Scalable and Powerful

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Cloud Platform Environment

Security at scale on hybrid clouds

15+ products providing comprehensive suite of security solutions

10,300+ customers

7 shared cloud platforms across North America, Europe & Asia

70+ private clouds platforms deployed globally... on-prem, AWS, Azure, GCP

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Cloud Platform Highlights

1+ trillion security events annually

3+ billion scans annually

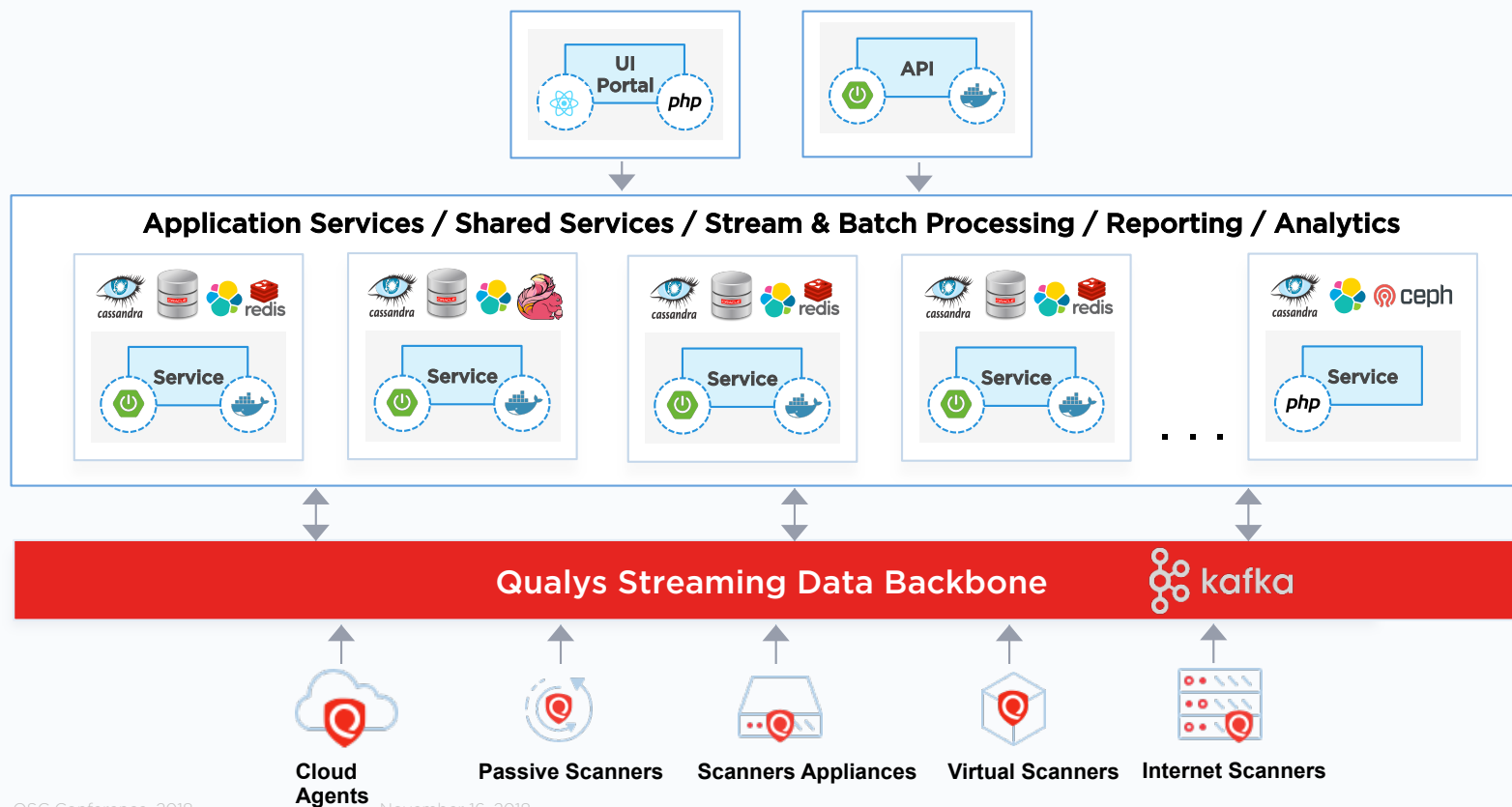**2.5+ billion** messages daily across Kafka clusters

620+ billion data points indexed in our Elasticsearch clusters

Unprecedented **2-second** visibility

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Qualys Cloud Platform
Sensors, Data Platform, Microservices, DevOps

Qualys Sensor Platform
Scalable, self-updating & centrally managed

Physical
Legacy data centers

Corporate infrastructure

Continuous security and compliance scanning

Virtual
Private cloud infrastructure

Virtualized Infrastructure

Continuous security and compliance scanning

Cloud/Container
Commercial IaaS & PaaS clouds

Pre-certified in market place

Fully automated with API orchestration

Continuous security and compliance scanning

Cloud Agents
Light weight, multi-platform

On premise, elastic cloud & endpoints

Real-time data collection

Continuous evaluation on platform for security and compliance

Passive
Passively sniff on network

Real-time device discovery & identification

Identification of APT network traffic

Extract malware files from network for analysis

API
Integration with Threat Intel feeds

CMDB Integration

Log connectors

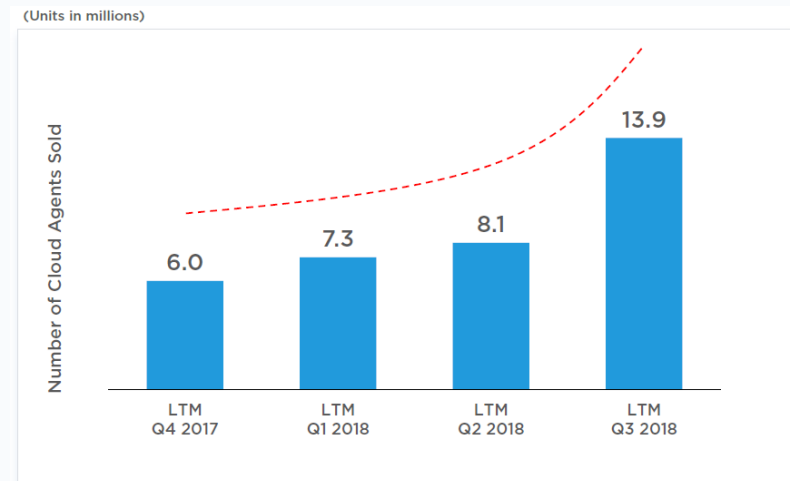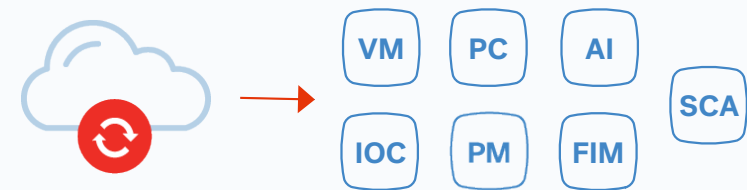Qualys.

Sensor Platform - Cloud Agents

Cloud connected, centrally managed, always up-to-date

Supports on-premises servers, public clouds, user endpoints

Consolidate multiple security solutions with one agent

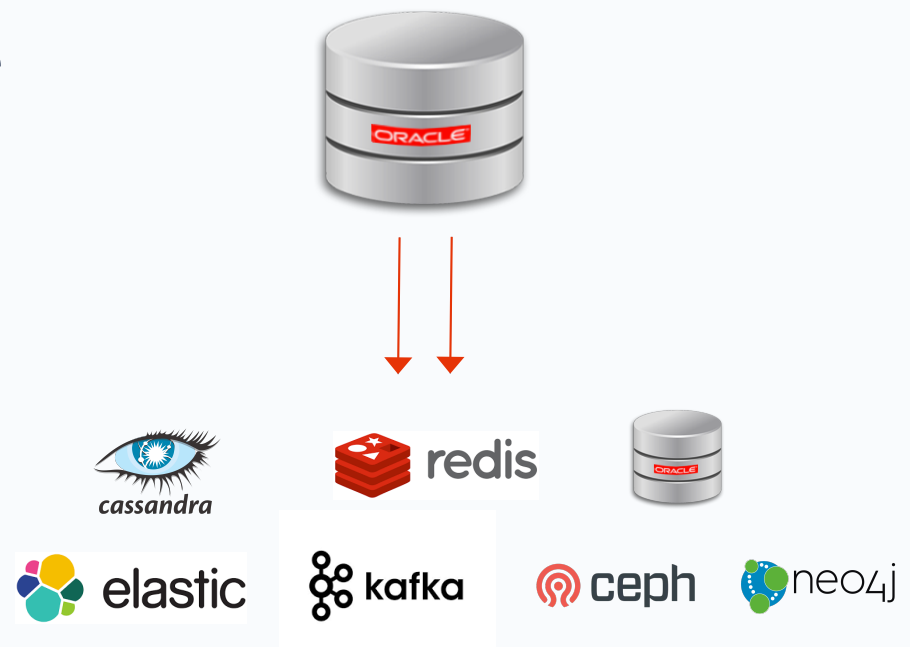Activate new Qualys apps without requiring reinstall or reboot

Lightweight ~ 3MB

(Units in millions)

Number of Cloud Agents Sold

6.0 — LTM Q4 2017
7.3 — LTM Q1 2018
8.1 — LTM Q2 2018
13.9 — LTM Q3 2018

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Data Platform-as-a-Service

Right database for the right use case

- Highly scalable architecture
- Predictable performance at scale
- Distributed and fault-tolerant
- Multi-datacenter support
- Open-source
- Commodity hardware

Data Platform-as-a-Service

Kafka

Asynchronous, event-driven architecture

Foundation for Qualys Cloud Platform

Over 2.5 billion messages per day

Elasticsearch

Search for anything

Over 620 billion data points indexed

Estimating about 1 trillion data points be year end

Cassandra

Low latency storage

Source of truth for data across multiple products

Redis

In-memory cache

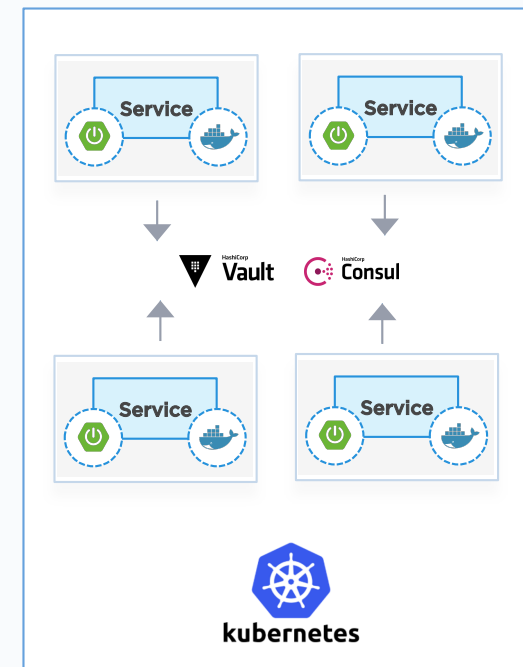Improved system performance for frequently accessed data

Ceph

Object storage

Moving Oracle and in-house blob storage into Ceph

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Microservices & Cloud Native Architectures

Reduce risk and ship faster

Change how we design and build
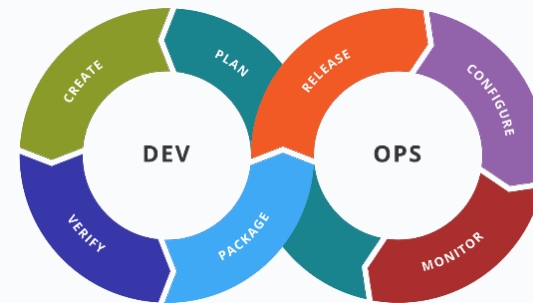applications and services

- Monoliths to microservices
- Well defined APIs
- Packaged in containers
- Deployed on elastic infrastructure
- 12-Factor apps
- CI/CD, Service Registry, Config Servers

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DevOps – Increased Efficiency

Goal is to make software delivery vastly more efficient

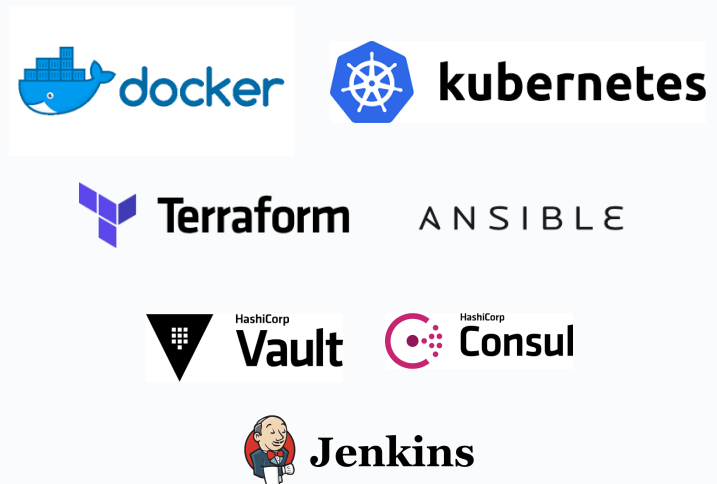Supporting about 80 shared and private cloud deployments.

Automation - Infrastructure as Code

Treat systems running your software as if they themselves are software

Automate
- Infra provisioning
- Configuration management
- Deployments...

....all using code

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Monitoring Systems - Observability

Centrally monitor across all platforms using a single-pane view

End-to-end monitoring using
- Time series metrics
- Distributed tracing
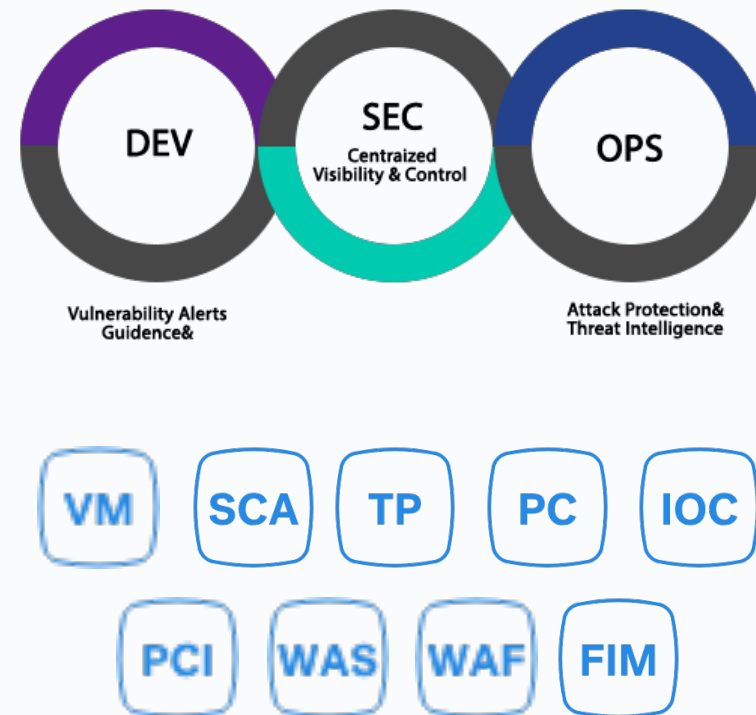- Log aggregation & analytics
- Alerting

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Integrated Security - DevSecOps

Built-in security practices across the DevOps lifecycle

Qualys-on-Qualys
- Manage vulnerabilities
- Comply with policies
- Secure and shield web apps
- Validate file integrity
- Monitor systems

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Integrated Suite of Applications

CA AI VM CM TP FIM PC PCI SAQ IOC WAS WAF

Shared Services

| Authentication Service | Authorization Service | Subscription Service | Indexing Service | Data Sync Service | Tagging Service |

Messaging, Data, Analytics Platform

kafka ORACLE ceph elastic cassandra redis Flink

Infrastructure and DevOps Toolchain

| Logging | Monitoring | Config Mgmt. | Service Registry | CI/CD | Docker/Kubernetes |

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Qualys Cloud Applications

ASSET MANAGEMENT

AI **Asset Inventory**
Maintain full, instant visibility of all your global IT assets

SYN **CMDB Sync**
Synchronize asset information from Qualys into ServiceNow CMDB

CI **Cloud Inventory**
Inventory of all your cloud assets across AWS, Azure, GCP and others

CRI **Certificate Inventory**
Inventory of TLS/SSL digital certificates on a global scale

IT SECURITY

VM **Vulnerability Management**
Continuously detect and protect against attacks, anytime, anywhere

CS **Container Security**
Discover, track, and continuously protect containers

TP **Threat Protection**
Pinpoint your most critical threats and prioritize patching

CRA **Certificate Assessment**
Assess all your digital certificates for TLS/SSL vulnerabilities

CM **Continuous Monitoring**
Alerts you in real time about network irregularities

PM **Patch Management (Beta)**
Select, manage, and deploy patches to remediate vulnerabilities

IOC **Indication of Compromise**
Continuously monitor endpoints to detect suspicious activity

COMPLIANCE MONITORING

PC **Policy Compliance**
Assess security configurations of IT systems throughout your network

CSA **Cloud Security Assessment**
Get full visibility and control across all public cloud instances

PCI **PCI Compliance**
Automate, simplify and attain PCI compliance quickly

SAQ **Security Assessment Questionnaire**
Minimize the risk of doing business with vendors and other third parties

FIM **File Integrity Monitoring**
Log and track file changes across global IT systems

SCA **Security Configuration Assessment**
Automate configuration assessment of global IT assets

WEB APPLICATION SECURITY

WAS **Web Application Scanning**
Secure web applications with end-to-end protection

WAF **Web Application Firewall**
Block attacks and virtually patch web application vulnerabilities

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Advanced Correlation & Analytics

ML/AI Service Patterns | Outlier | Predictive SoC	**Orchestration & Automation** Integration | Playbooks | Response	**UEBA** User & Entity Behavior Analytics
Threat Hunting Search | Exploration | Behavior Graph	**Security Analytics** Anomaly | Visualization | Dashboard	**Advanced Correlation** Actionable Insights | Out-of-box Rules

Qualys Security Data Lake Platform
Data Ingestion \| Normalization \| Enrichment \| Governance

Network	Security	Server	End Point	CA VM AI PC IOC WAS WAF Qualys Apps	Apps	Cloud	Users	IoT

Qualys Quick Connectors

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Thank You

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